September 8, 2003

California Energy Commission 1516 9<sup>th</sup> Street Sacramento, CA 95814

Subject: 2005 Building Energy Efficiency Standards, 45 Day Language Express Terms

To Whom It May Concern:

These comments to the 2005 Building Energy Efficiency Standards are submitted on behalf of the North American Insulation Manufacturers Association (NAIMA).

NAIMA supports all of the proposed revisions to the California Building Energy Efficiency Standards with the following exception:

The Residential ACM – RH Appendix; High Quality Insulation Installation Procedures do not adequately nor equitably address the installation of loose-fill materials. In order to ensure the proper R-value is delivered all materials must be installed at the target density and thickness.

NAIMA is strongly opposed to treating mineral fiber and cellulose type loose-fill materials differently when then industry standards (ASTM and ICAA) recognize that density and thickness are the two properties that are used to ensure the intended R-value is achieved.

To ensure that the proper density is achieved, the CEC should require the installer and inspector to verify that the appropriate number of bags of insulation are installed at the minimum specified depth to achieve the minimum desired R-value. All loose-fill insulation bag labels provide the number of bags of insulation required per a given area and the minimum depth required for a given R-value.

The current language requiring the inspector to determine the pounds per square foot of mineral fiber insulation is not viable. It is virtually impossible to gather 1 square foot of insulation and weigh it after it has been installed. And even if that could be done the installer and inspector would not know number of pounds per square foot required to achieve the desired R-value.

As currently written, the protocol would allow a cellulose installation to be approved when it does not even meet the minimum requirements given on the bag label. For example, if the installation instructions called for a minimum depth of 10 inches at time of installation for the target R-value – per this protocol, the installation could be approved one hour after installation even if all measured depths were only 9 5/8 inches. This is contrary to industry standards and the objectives of the CEC.

In order to address this NAIMA urges the CEC to require that the inspectors verify that the appropriate number of bags and the specified depth be installed to achieve the intended R-value. This approach would work for both materials – assuming the cellulose materials are inspected after the majority of settling has occurred.

Thank you for the opportunity to comment on the proposed standards.

Sincerely,

## Charles C. Cottrell

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